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07/945,465 09/16/92 SEGATTA

91221A

GOODYEAR TIRE & RUBBER COMPANY
PATENT & TRADEMARK DEPT.
DEPT. 823
AKRON, OHIO 44316

CHARLES

ART UNIT PAPER NUMBER

1301

DATE MAILED

2/19/93

This communication is for the examiner through your association
COMMISSIONER OF PATENTS AND TRADEMARKS

☒ This application has been examined ☒ Responsive to communication filed on 9-16-92 ☐ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), 14 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|---|--|
| 1. <input checked="" type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input checked="" type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input checked="" type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449. | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152. |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474. | 6. <input checked="" type="checkbox"/> Interview Summary (phone) |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-8 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-8 are rejected.
5. ☐ Claims _____ are objected to.
6. ☒ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with Informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
8. ☐ Formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. Under 37 C.F.R. 1.84 these drawings are ☐ acceptable. ☐ not acceptable (see explanation or Notice re Patent Drawing, PTO-948).
10. ☐ The proposed additional or substitute sheet(s) of drawings, filed on _____ has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☐ The proposed drawing correction, filed on _____, has been ☐ approved. ☐ disapproved (see explanation).
12. ☐ Acknowledgment is made of the claim for priority under U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

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1. Restriction to one of the following inventions is required under 35 U.S.C. § 121:

I. Claims 1-4, drawn to Group I: a radial tire comprising of a carcass ply and an apex of a certain composition, classified in Class 152, subclass 548.

II. Claims 5-8, drawn to Group II: a method of preparing a tire with a carcass ply and an apex, classified in Class 156, subclass 110.1.

During a telephone conversation with Bruce Hendricks on 13 January 1993 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-4. Affirmation of this election must be made by applicant in responding to this Office action. Claims 5-8 are withdrawn from further consideration by the Examiner, 37 C.F.R. § 1.142(b), as being drawn to a non-elected invention.

2. However, upon further consideration, the above restriction has been withdrawn. All claims (1-8) will be examined in this rejection on their merits.

3. The following is a quotation of 35 U.S.C. § 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that

Art Unit 1301

the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Subject matter developed by another person, which qualifies as prior art only under subsection (f) or (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person.

Claims 1-8 are rejected under 35 U.S.C. § 103 as being unpatentable over Böhm in view of Sandstrom et al.

The bead apex region has been recognized as an unstable region by Böhm. Böhm recognizes that an uncured rubber compound tends to flow during the curing operation, especially when under pressure, and particularly true in the bead and inner liner area. Böhm also recognizes the need to maintain tack for adhesion purposes, and by coextruding a particular rubber compound, overcomes both lack of tack from pre-cured separate rubber layers and increased stiffness by the particular compound used. (One component of this compound being a polybutadiene rubber known for its stiffening capabilities-col. 3, para. 3-onward). col. 1, para. 3-onward, for Sandstrom et al. teaches the use of trans 1, 4 polybutadiene content in rubber, including applicant's identical method of making, percentage quantities and melting

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points, to increase uncured base rubber viscosity and green strength of the base tread rubber to prevent movement of it into the cap rubber (col. 1, col. 2).

In view of the teachings of the primary reference, it would be obvious for one in the art to readily try to use trans 1, 4 content in the apex region of a tire in order to prevent movement (of the carcass cords) while still maintaining tac (adhesion).

6. Any inquiry concerning this communication should be directed to Sharon Chan at telephone number (703) 308-4445.

S. Chan

Sharon Chan;nrd
February 12, 1993
February 16, 1993

MBel
MICHAEL W. BALL
SUPERVISORY PATENT EXAMINER
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